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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,335

07/21/2006

Merritt B. Andrus

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EXAMINER

NWAONICHA, CHUKWUMA O

ART UNIT

PAPER NUMBER

1621

MAIL DATE

DELIVERY MODE

12/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,335	Applicant(s) ANDRUS ET AL.	
	Examiner CHUKWUMA O. NWAONICHA	Art Unit 1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 69-87 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 69-87 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/02/2008</u> See next page. | 6) <input type="checkbox"/> Other: _____ |

Page No(s)/Mail Date 01/18/2008, 07/06/2007, 02/26/2007 & 11/17/2006

DETAILED ACTION

Current Status

1. Claims 69-87 are pending in the application.
2. This action is responsive to Applicants' amendment of 13 October 2007.
3. Receipt and entry of Applicants' amendment is acknowledged.

Election/Restrictions have been vacated following Applicants amendments.

Priority

Applicants' claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

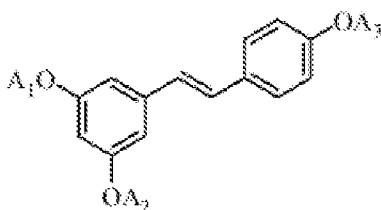
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 69, 73, 75 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engler et al., {Lewis Acid-Promoted Reactions of Unsymmetrically Substituted

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Stilbenes with 2-Methoxy-1,4-benzoquinones: Stereoselective Synthesis of trans-2,3-Diaryl-2,3-dihydrobenzofurans, Journal of Organic Chemistry (1995), 60(12), 3700-3706} and Gokaraju et al., {WO 2004000302 same as US 7,026,518}.

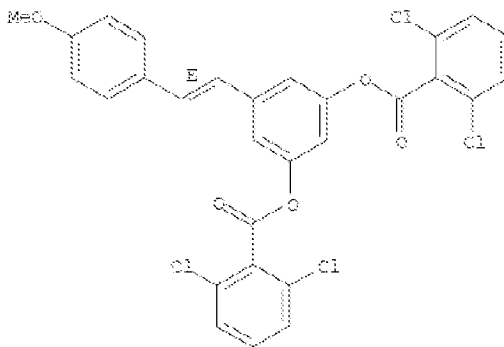
Applicants claim the compound of the general formula 1; wherein all the variables are as defined in the claims.



Formula 1

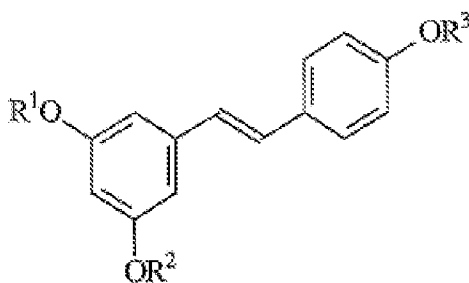
Determination of the scope and content of the prior art (M.P.E.P. §2141.01)

Engler et al. teach the compound of the formula 2, and its pharmaceutically acceptable salt. See abstract.



Formula 2

Gokaraju et al. teach applicants claimed compound as shown; wherein R1-R3 are methyl and aceto groups. See page 5, lines 1-4 of WO 2004000302.



Formula 2

Ascertainment of the difference between the prior art and the claims (M.P.E.P. §2141.02)

Applicants claimed compound of the general formula 1 differs from the teaching of the prior art references in that the instantly claimed compound of the general formula 1 is a homolog of the prior art's compound. That while Applicants claim hydrogen, the prior art references teach methyl group.

Finding of prima facie obviousness--rational and motivation (M.P.E.P. §2142-2143)

The instantly claimed compounds of the general formula 1 would have been obvious to one of ordinary skill in view of the compounds of Engler et al. and Gokaraju et al. because the instant compound is a homolog of the compound taught by the references. In the instantly claimed application, Applicants claim a compound wherein the phenyl ring is substituted with OH while the prior art of Engler et al. and Gokaraju et al. teach compounds wherein the phenyl ring is substituted with OCH₃. Hydrogen versus methyl group is obvious because of their property relationship. In re Henze, 85 U.S.P.Q. 261, 263 (C.C.P.A. 1950). To be patentable, novel members of homologous series of chemical compounds must possess unobvious or unexpected beneficial

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properties not possessed by homologous compound disclosed in prior art. In re Hass, 141 F.2d 127, 60 USPQ 548 (CCPA 1944). Therefore, the prior art's compound would be expected to have similar properties and activities as the compounds of the present invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

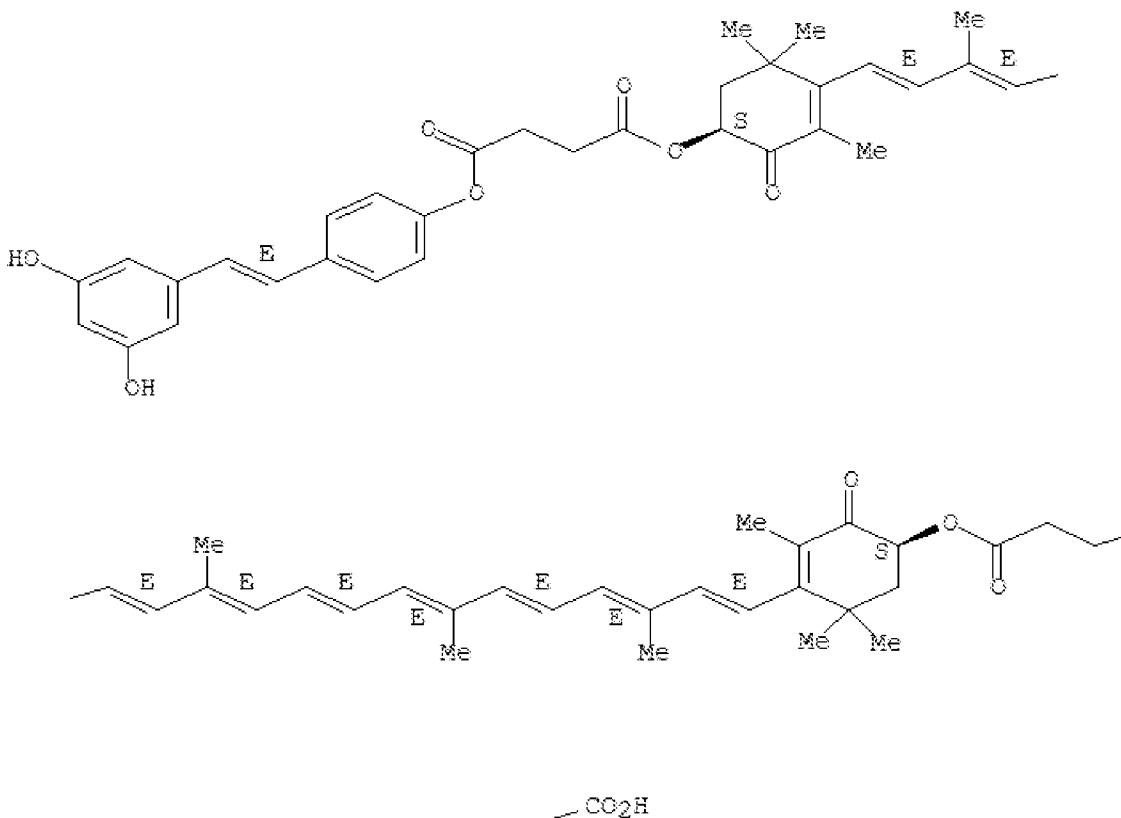
The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 69, 72, 75 and 76 are rejected under 35 U.S.C. 102(e) as being anticipated by Lockwood et al., {US 7,145,025 or WO 2004011423}.

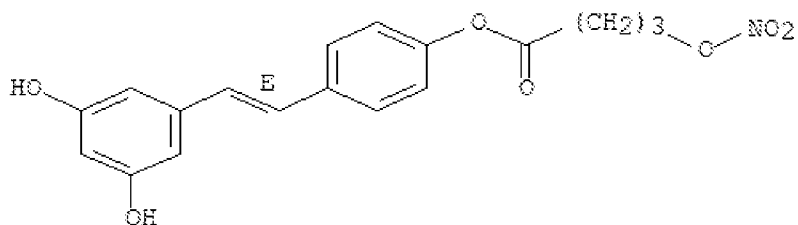
Lockwood et al. disclose applicants claimed compound as shown below. See Abstract of WO 2004011423.

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Claims 69-72 and 75-78 are rejected under 35 U.S.C. 102(a) as being anticipated by Scaramuzzino, {EP 1336602}

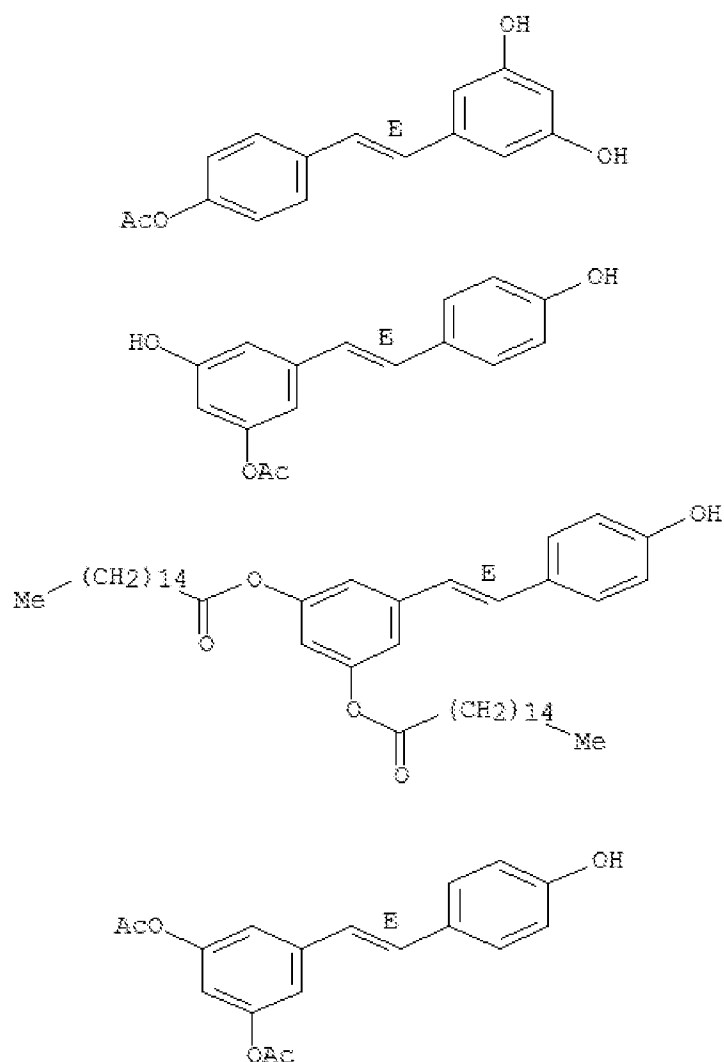
Scaramuzzino discloses applicants claimed compound as shown below. See Abstract.



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Claims 69, 70, 73 and 74-84 are rejected under 35 U.S.C. 102(b) as being anticipated by Nicolosi et al., {Chemo-enzymatic preparation of resveratrol derivatives, Journal of Molecular Catalysis B: Enzymatic (2002), 16(5-6), 223-229}.

Nicolosi et al. disclose Applicants claimed compound as shown below. See page 228.



Claims 69-87 are rejected under 35 U.S.C. 102(b) as being anticipated by Gokaraju et al., {WO 2004000302 same as US 7,026,518}.

Gokaraju et al. disclose applicants claimed compound as shown in the abstract.
See page 5, line 5 of WO 2004000302.

The examiner is respectfully requesting that applicants provide the chemical structure for each species of claim 76. This submission would make the record clearer and advance the prosecution of this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chukwuma O. Nwaonicha whose telephone number is 571-272-2908. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Sullivan can be reached on 571-272-0779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Center (EBC) at 866-217-9197 (toll-free).

/Chukwuma O. Nwaonicha/
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/Karl J. Puttlitz/

Primary Examiner, Art Unit 1621